APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/451,802	12/01/1999	MURALI SUNDAR	884.132US1	9540

			EXAMINER
21186	7590	06/07/2004	POLLACK, MELVIN H

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. BOX 2938
MINNEAPOLIS, MN 55402

ART UNIT	PAPER NUMBER
2141	

DATE MAILED: 06/07/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>22 March 2004</u>.
2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-21</u> is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-21</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a)☐ All b)☐ Some * c)☐ None of:
1.☐ Certified copies of the priority documents have been received.
2.☐ Certified copies of the priority documents have been received in Application No. _____.
3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☒ Other: *see attached office action*.

DETAILED ACTION

Response to Amendment

1.   Applicant's request for reconsideration of the finality of the rejection of the last Office

action is persuasive and, therefore, the finality of that action is withdrawn.

Response to Arguments

2.   In view of the appeal brief filed on 22 March 2004, PROSECUTION IS HEREBY

REOPENED. A new grounds of rejection, based on the previously cited art, is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following

two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37

CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a

supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or

other evidence are permitted. See 37 CFR 1.193(b)(2).

3.   After review of the body of the application in light of the appeal brief, the examiner has

determined that the original rejection must be further clarified in regards to certain issues,

especially in regards to the changing of a state. However, the basis of rejection for the claims

has not changed and therefore finality has been reinstated in this case.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
such that the subject matter as a whole would have been obvious at the time the invention was made to a person
having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
manner in which the invention was made.

5.   Claims 1, 2, 7, 8, 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Adams (5,963,944) in view of Meyer et al. (6,289,378).

6.   For claim 1, Adams teaches a method (see abstract) of managing the state of networked

computers (col. 1, lines 9-11), comprising:

        a.   Specifying a preferred state (col. 9, lines 46-50);

        b.   Defining selected networked computers to be maintained in the preferred state

        (col. 5, lines 3-15);

        c.   Monitoring the selected networked computers for deviation from the preferred

        state (col. 2, lines 30-40); and

        d.   Bringing the selected networked computers that deviate from the preferred state to

        the preferred state (col. 3, line 65 – col. 4, line 7) via a mobile software agent (col. 1,

        lines 49-51) that travels autonomously between the selected networked computers (col. 4,

        lines 16-32).

7.   As shown previously, Adams teaches a generic set of preferred states, including at least

one form of control of the remote nodes. The primary purpose of Adams is to manage data

stored on each node, i.e. by managing, moving, changing, indexing, and distributing data and

index files (col. 1, lines 5-10 and 43-53). The functions also include the aggregation of similar

data structures (col. 3, lines 5-10), the transfer of data and indexing files, the replication of files

for backup and error correction purposes (col. 3, line 65 – col. 4, line 35; col. 10, liens 5-20), and

other possibly encoded functions. One final particular function is the ability to add data files to

the system, or to find particular files and aggregate them (col. 6, lines 25-55; col. 7, lines 30-40). Finally, Adams teaches a method of replacing certain files with later versions of the same file (col. 9, lines 20-30). Thus, the moving and manipulation of files changes the state of the node in a number of ways and for a number of purposes. And furthermore, Adams uses the agents and control techniques to maintain certain states, i.e. that files are sufficiently redundant or that files are sufficiently spread out among the nodes.

8.   The examiner would now like to discuss the issue of hardware and software configuration. At its core is the updating of certain files, be they a change in a DLL library file, an update or change to a device driver, or a new program or service loaded onto the node. This is especially the case for upgrading systems through the use of agents. New hardware cannot be added through an agent; the hardware and software configuration changes must occur through the addition, deletion, manipulation, and moving/copying of files in software or firmware, i.e. by upgrading the version of a particular file. Thus, the particular functions above, with some modification, may be used to provide a whole suite of methods to maintain hardware and software configuration.

9.   Adams does not expressly disclose that the preferred state comprises at least one of hardware or software configuration of the networked computers. Meyer teaches a method (see abstract) for a remote (col. 1, lines 29-31) management system (col. 1, lines 6-7) that is capable of managing hardware and software configurations (col. 1, lines 35-40) using remote agents (col. 1, lines 40-45). This includes monitoring of the system (col. 1, lines 50-52) and control of the system (col. 1, lines 53-55). Further, a change to a computer implies that a preferred state was at one point specified. For more information, the applicant is directed to col. 5, line 40 – col. 6,

lines 19. At the time the invention was made, one of ordinary skill in the art would have

combined the two inventions in order to allow Adams more options for maintaining computer

system changes (col. 1, lines 5-31).

10.   Claims 2 and 8 are drawn to many of the features in claim 1, and are also rejected. The

examiner suggests cancellation of these claims.

11.   For claim 7, Adams teaches that a mobile software agent performs the monitoring (Fig. 2,

#126).

12.   Claim 16 is a machine-readable medium with instructions stored thereon, the instructions

operable when executed to implement the method drawn in claim 1. Claims 17-19 are similar,

but do not have all the limitations. The prior art teaches that a software implementation is

functionally equivalent to the underlying method. Since claim 1 is rejected, then claims 16-19

are also rejected for the reasons above.

13.   Examiner takes Official Notice (see MPEP § 2144.03) that "program instructions are

stored on a medium and operable when executed" in a computer networking environment was

well known in the art at the time the invention was made.

14.   The Applicant is entitled to traverse any/all official notice taken in this action according

to MPEP § 2144.03. However, MPEP § 2144.03 further states "See also In re Boon, 439 F.2d

724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice must contain

adequate information or argument to create on its face a reasonable doubt regarding the

circumstances justifying the judicial notice)." Specifically, In re Boon, 169 USPQ 231, 234

states "as we held in Ahlert, an applicant must be given the opportunity to challenge either the

correctness of the fact asserted or the notoriety or repute of the reference cited in support of the

assertion. We did not mean to imply by this statement that a bald challenge, with nothing more,

would be all that was needed". Further note that 37 CFR § 1.671(c)(3) states "Judicial notice

means official notice". Thus, a traversal by the Applicant that is merely "a bald challenge, with

nothing more" will be given very little weight.

15.   Claim 20 is drawn to a computerized network computer management system comprising

a hardware implementation of the method drawn in claim 1. The prior art teaches that a

hardware implementation is functionally equivalent to a software implementation. Therefore,

since claim 1 is rejected, then claim 20 is also rejected for the reasons above.

16.   Claim 21 is drawn to a method with many of the same limitations as claim 1. Since claim

1 is rejected, then claim 21 is also rejected for the reasons above.

17.   Claims 3-6, 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams

and Meyer as applied to claims 1, 2, 7, 8 above, and further in view of Walsh (6,233,601).

18.   Walsh teaches (see abstract) a mobile software agent (Fig. 3) that travels autonomously

(Fig. 5) between the selected networked computers (Fig. 6).

19.   Adams teaches a mobile agent, as shown above, but does not adequately disclose the

technique of agent movement. For claims 3 and 4, Walsh teaches that the agent travels to the

computers on a generated list of networked computers to be maintained in the preferred state

(Fig. 6, #28). As for claims 5 and 6, Walsh teaches that selecting the computers involves

defining a network space of computers, wherein the agent autonomously travels to the computers

within this space (Fig. 6). At the time the invention was made, one of ordinary skill in the art

would have used the Walsh method of agent travel to determine the Adams method of travel and

to provide efficient mobility of code (col. 2, lines 16-17).

20.   For claim 10, Walsh teaches that the mobile agent travels by transferring itself from one

computer to the next, and erasing itself from the present computer after it has successfully

transferred itself (col. 4, lines 47-57). Adams teaches the need for a mobile agent to travel

efficiently (col. 4, llines 16-32), but does not expressly disclose that the agent is deleted. At the

time the invention was made, one of ordinary skill in the art would have used the Walsh travel

method to increase Adams' mobile agent efficiency.

21.   For claims 11-15, Walsh teaches that the agent can decide to travel to computers not

originally on the itinerary, and maintains a trip report that is sent to the host both periodically and

upon return (col. 2, lines 47 – 58). Walsh also teaches that the selected network computers have

a mobile software agent host program thereon to facilitate mobile software agent travel and

execution (Fig. 5, 7). Adams does not expressly disclose a travel log, but does teach that an

agent may change its itinerary (col. 4, lines 16-32) and belongs to an agent host program (Fig. 1,

110). At the time the invention was made, one of ordinary skill in the art would have used a

Walsh agent system to more accurately control and track an Adams agent.

22.   Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adams and Meyer

as applied to claims 1, 2, 7, 8 above, and further in view of Johnson et al (5,987,135).

23.   Johnson teaches many of the limitations in claim 1, as shown in prior office actions. As

for claim 9, Johnson teaches that the mobile software agent that brings the selected networked

computers that deviate from the preferred state to the preferred state also performs the

monitoring the selected networked computers for deviation from the preferred state by first

monitoring each selected networked computer it travels to for deviation from the preferred state

and subsequently bringing the computer to the preferred state if it deviates from the preferred

state (It was shown in prior office actions that an agent can have a monitor capability and another

agent can have a correction capability. But the above says that an agent can "perform any or all

of the following functions" in col. 5, line 1. That is, the same agent can perform both monitor

and correction functions.).

24.   Adams teaches many of the above details, but does not fully disclose all of the

monitoring techniques. At the time the invention was made, one of ordinary skill in the art

would have used Johnson's monitoring agents to learn how to implement the monitoring agents

of Adams.

Conclusion

25.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin H Pollack whose telephone number is (703) 305-4641. The examiner can normally be reached on 8:30-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (703) 305-4003. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MHP
17 May 2004

RUPAL DHARIA
SUPERVISORY PATENT EXAMINER